

LD₅₀ ORAL TOXICITY TESTDATE 7.1.66MATERIAL Lead Nitrate Pb(NO₃)₂PHYSICAL APPEARANCE white crystalsMR-10 BK.NO. 2 PAGE 144 H.NO. 4599 T.I. JOYCE LONGCOREDEPT. _____ DEPT.NO. _____ ALD 5000 mg/kg D₂₀° _____ pH _____Material given by stomach tube to ♂ CHRCO RATS in original form oras a 40 %¹ (✓) solution of () active ingredient in distilled water.
() suspension (✓) original sample

Date	No. Rats Dosed	Av. Wt.	Dose mg/kg	% Sol.	Av. Dose (ml)	Av. Surv. Time (days)	Mort. Ratio	Remarks	TS
5.26	10	270	4200	40	2.83		2/10		NO
5.18	10	283	5000	40	3.54		5/10		NO
6.3	10	276	5600	40	3.86		8/10		NO
5.26	10	272	6200	40	4.22		9/10		NO

LD₅₀ = 5000 mg/kg ^{based on Pb(NO₃)₂ and 3130 mg/kg based on Pb⁺⁺ with 19/20 confidence}
limits of 3405 and 2877 mg/kg.Confidence Limits² = 5440
4596 mg/kg

1. gms/100 ml
2. "A Simplified Method of Evaluating Dose-Effect Experiments", by J. T. Litchfield and F. Wilcoxon, J. Pharm. Exp. Therap., 96: 99 (1949)

Clinical signs:

Few small feces, anorexia, ruffled fur, chromo, distended stomach, weight losses for 5-8 days after dosing.

Summary:

The LD₅₀ for Pb(NO₃)₂ is 5000 mg/kg with upper and lower confidence limits for 19/20 probability of 5440 and 4596 mg/kg. Based on the Pb ion this would be an LD₅₀ of 3130 mg/kg with upper and lower confidence limits for 19/20 probability of 3405 and 2877 mg/kg. Clinical signs of toxicity included anorexia; few and small feces, ruffled fur, chromo and swollen bellies. These signs persisted ~~from~~ for 5-8 days after dosing in those animals which survived. Deaths occurred 0 to 4 days after dosing and were preceded by weight losses and the above clinical signs.